7.0 CALTRANS MITIGATION MONITORING PROGRAM

To ensure that all mitigation measures identified in this document are executed at the appropriate times, the following program will be implemented.

The program will follow a three-phase sequence: design of the project, construction, and post-construction/ maintenance activities. During design and preparation of the contract plans, there will be periodic environmental review to ensure that mitigation measures and other commitments are incorporated into the final project plans, specifications and cost estimates. A check will be made to determine that Caltrans has received all necessary permits, and that any additional actions or conditions specified by these permits are also included in the contract plans.

Before construction starts, field engineers and contract staff will hold meetings with Caltrans environmental specialists, who will identify environmental commitments and explain their background and importance. A preliminary environmental monitoring plan and schedule of field reviews by environmental staff for the duration of construction will be developed. The resident field engineer will keep a list of names of specialists who have expertise for the various environmental concerns which may arise during construction. The contractor's Storm Water Pollution Prevention Plan will also be reviewed periodically during construction. Proposed changes to the original contract plans will be reviewed by environmental staff to determine if environmental obligations or commitments to other agencies are affected, or if new impacts may result, to ensure that compliance with these obligations is fulfilled. Project files will be maintained by the Caltrans environmental branch to document field reviews, monitoring reports, and actions taken to address changes in the construction contract.

After construction is completed, the executed mitigation measures will be maintained. Their effectiveness will be determined through timely monitoring by Caltrans environmental and landscape specialists, and Caltrans' environmental engineering coordinator. Highway maintenance personnel will check that all drainage facilities, erosion control devices, irrigation systems, and other installations related to environmental commitments, are functioning as intended. Plantings will undergo an appropriate period of maintenance to ensure establishment, and plant materials will be replaced as necessary. The project environmental analyst will have a continuing coordination role during final design and construction monitoring. A monitoring form, the Mitigation Monitoring and Reporting Record (MMRR), will be used as a checklist to track each measure or task, and ensure completion of all commitments during the future phases of the project. The proposed MMRR appears on the following pages. The MMRR identifies the appropriate staff/ Caltrans branch who are responsible for ensuring each mitigation measure is done. The columns Action Taken, Task Completed, Remarks, and Environmental Compliance are therefore blank at this stage; these columns would be filled out in the future as each measure is implemented.

Task and Brief Description	**Responsible Branch / Staff**	**Timing / Phase**	**Action Taken to Comply with Task**	**Task Completed**		**Remarks**	**Environmental Compliance**	
				Initial	Date		Initial	Date
DESIGN KICK-OFF	Project Manager	Beginning of 1 phase						
PRE-LOG-IN REVIEW	Design	80% Plans						
ENVIRONMENTAL PS&E REVIEW	Environmental Coordinator	District PS&E Circulation						
IN-HOUSE PRECONSTRUCTION MEETING	Project Manager	Contract Award						
Transfer Resident Engineer Book	Project Engineer	Preconst Meeting						
PREJOB MEETING with CONTRACTOR	Construction	Beginning of Construction						
ENVIRONMENTAL COMPLIANCE REVIEW	Construction	Safety Review						
DESIGN FEATURES MEMORANDUM	Construction / Design	Post Construction						
NOISE	Environ "C"							
Construct walls at residential receptors	Resident Engineer/ Construction	During Construction						
No pile driving at night/ weekends or near sensitive receptors	Resident Engineer/ Construction	During Construction						
WATER QUALITY	Environ "C"							
Implement Caltrans SWMP, Storm Water Quality Handbooks, Contractors Guide, Specifications	Resident Engineer/ Construction/ NPDES Staff	During Construction						

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				Initial	Date		Initial	Date
Implement SWPPP, use BMP's, minimize erosion	Resident Engineer/ Construction/ NPDES Staff	During Construction						
Conform NPDES permits: No. CAS029998 and for Dewatering No. CA0108707	Resident Engineer/ Construction/ NPDES Staff	During Construction						
Comply with IBWC guidelines	Resident Engineer	During Construction						
Use native or drought-tolerant species for project landscaping	Landscape Architecture	Post Construction						
For vernal pools/sensitive drainages: preserve existing vegetation buffers, use soil stabilizers, temporary sediment catchment devices, drainage diversion structures, etc.	Resident Engineer/ Construction/ Biology	During Construction						
AIR QUALITY	Environ "C"							
Dust Control: use standard specifications, moistening, tarp coverage	Construction	During Construction						
BIOLOGICAL RESOURCES	Biology / Stewardship							
Reduce wetland impacts from vehicle contaminants use grass-lined retention/detention basins	Resident Engineer/ Construction	Beginning of Construction						
Delineate and protect ESA's, use fencing to protect habitat.	Environ "B" / Design / Construction	During Design and Construction						

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				Initial	Date		Initial	Date
Maximize use of Diegan coastal sage scrub in ROW, hydroseed slopes	Environ "B" (biology)	Post Construction						
Open water/disturbed wetlands,1:1 mitigation ratio	Environ "B" (biology)	Design/ Construction						
Vernal pool mitigation ratio 2:1 to 4:1 depending on plant/animal species	Environ "B" (biology)	Design/ Construction						
Coastal sage scrub 1:1 ratio	Environ "B"	Design/ Construction						
Freshwater marsh 2:1 ratio	Environ "B"	Design/ Construction						
Riparian scrub 2:1 ratio	Environ "B"	Design/ Construction						
Habitat in OCCS preserve recommended higher ratio of 1:1	Environ "B" (biology)	Design/ Construction						
Maintain wildlife corridor between Spring/Dennery Canyons with bridge or culvert	Environ "B"/Project Engineer/ Construction	Design/ Construction						
Provide roosting areas for bat species in bridge design	Project Engineer/ Construction	Design/ Construction						
Salvage topsoil and duff apply to graded slopes	Project Engineer/ Construction	Construction						
Collect native seeds/ cuttings for revegetation	Project Engineer/ Construction	Construction						

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				Initial	Date		Initial	Date
Plant trees and shrubs with irrigation	Project Engineer/ Construction	Design/ Construction						
Implementation of vernal pool mitigation plan	Environ "B"/Project Engineer/ Construction	Post Construction						
Salvage soil in vernal pools use in new created pools	Project Engineer/ Construction	Construction						
Qualified biologist onsite when construction occurs adjacent to sensitive habitat	Environ "B"/Project Engineer/ Construction	During Construction						
Avoid impacts to nesting birds: monitor, no vegetation clearing from Feb. 15 - Sept. 1	Project Engineer/ Construction	Construction						
VISUAL	Landscape Architecture							
Standard highway planting w/ irrigation. Above standard east of Caliente Blvd.	Landscape Architecture	Within 1 Year of Construction Completion						
Mature Eucalyptus and other trees, plant five trees for each tree removed	Landscape Architecture	Within 1 Year of Construction Completion						
Plant and irrigate trees and shrubs planted at select locations (especially gateway, canyons)	Landscape Architecture	Within 1 Year of Construction Completion						
Preserve existing mature plant material where feasible	Resident Engineer/ Construction	During Construction						

Task and Brief Description	**Responsible Branch / Staff**	**Timing / Phase**	**Action Taken to Comply with Task**	**Task Completed**		**Remarks**	**Environmental Compliance**	
				Initial	Date		Initial	Date
Special treatment/design of highway appurtenances, concrete surfaces, signage, lighting at select locations (gateway)	Landscape Architecture	Design/ Construction						
Landform mitigation include rounding and blending of slopes	Resident Engineer/ Construction	Design/ Construction						
Minimize extent of cut and fill slopes	Resident Engineer/ Construction	Design/ Construction						
Integrate drainage/ maintenance features into slopes	Resident Engineer/ Construction	Design/ Construction						
Slope revegetation: hydroseed emphasize native species, irrigate select areas	Landscape Architecture	Within 1 Year of Construction Completion						
No non-native planting adjacent to sensitive habitats	Landscape Architecture	Within 1 Year of Construction Completion						
Use temporary irrigation until plants are established	Landscape Architecture	Within 1 Year of Construction Completion						
Use geosynthetic fabric lining for drains with vegetation where feasible	Resident Engineer/ Construction	Design/ Construction						
Use color and texture for select concrete drains/ walls	Resident Engineer/ Construction	Design/ Construction						

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				Initial	Date		Initial	Date
Underground utilities for street improvements as feasible	Resident Engineer/ Construction	During Construction						
Lighting: use shielding to avoid glare for homes and canyons	Design/ Landscape Architecture	Design/ Construction						
CULTURAL/ PALEONTOLOGICAL RESOURCES (monitoring)	Environ "B"	During Construction						
ESA's will be delineated adjacent to recorded sites	Environ "B"	Design/ Construction						
Construction contractor responsible for monitoring construction activities near CA-SDI-11,424	Environ "B"	Construction						
PERMITS								
U.S. Army Corps Section 404 and 401	Stewardship							
RWQCB: Section 401, 402	Stewardship/ Design	Design/ Construction						
CA Department of Fish and Game (Endangered Species)	Biology							
Section 1601 Streambed Alteration Agreement	Stewardship/ Biology							
U.S. Fish and Wildlife (Endangered Species)	Biology							
FARMLAND	Environ "A"							
Replace necessary agricultural infrastructure or pay fair damages to property owner.	Right-of-Way	Prior to construction						

Task and Brief Description	**Responsible Branch / Staff**	**Timing / Phase**	**Action Taken to Comply with Task**	**Task Completed**		**Remarks**	**Environmental Compliance**	
				Initial	Date		Initial	Date
Salvage topsoil in material site, replace at end of grading unless affected areas are developing	Resident Engineer/ Construction	Beginning of Construction						
LAND USE								
Amendment to Otay Mesa Community Plan reflect six-lane highway (La Media to POE)	Project Manager/City Staff							
SOCIAL	Environ "A"							
Inform emergency providers of all detours	Resident Engineer/ Construction	During Construction						
Prepare traffic management plan/ retain home and business access	Project Engineer/ Construction	Design/ During Construction						
Maintain regional/ local circulation via detours	Resident Engineer/ Construction	During Construction						
RELOCATION								
Provide relocation assistance to eligible residents/businesses.	Right-of-Way	Prior to construction						
FLOODPLAIN								
Minimize impacts by adherence to standard practices/use of ESA's	Resident Engineer/ Construction	During Construction						
Cooperate as partner/fair share participant in OMDMP (costs must be equal to or less than those planned by Caltrans)	Project Engineer/ Construction	Design/ Construction						

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				Initial	Date		Initial	Date
HAZARDOUS WASTE	Environ "C"							
Surficial refuse deposits: remove/dispose of at approved location	Resident Engineer/ Construction	Beginning Construction						
Conduct soil testing at refuse sites to determine any contamination	Project Engineer/ Environ "C"	Deisgn/ Beginning Construction						
Develop appropriate health/safety plan with information from approved Remedial Action Workplan for Tripp Landfill	Project Engineer/ Construction/ Environ "C"	Design/ Prior to Construction						
If hazardous waste is discovered, work is stopped, area is flagged, Hazardous Waste Coordinator is notified	Resident Engineer/ Construction							
Standard operations/ maintenance procedures will be followed including HW&SRP for any potential spills.	Project Engineer/ Construction							